1. A mobile telephone system comprising:

a transmitting side apparatus serving as a base station and including spread modulation means for spreading information data from a plurality of users by using a plurality of spread codes corresponding to channel numbers assigned to said plurality of users respectively and combining means for combining the spread information data and transmitting the combined information data; and

a receiving side apparatus including despread means for despreading the transmitted information data by using said plurality of spread codes corresponding to the channel numbers assigned to said plurality of users respectively;

wherein said plurality of spread codes are obtained by multiplying m orthogonal spread codes by pseudo-random noise codes and assigned to individual channels in the same cell in such a manner that the spread codes, which are obtained by multiplying said m orthogonal spread codes by a first pseudo-random noise code, are assigned to channel numbers #1 to #m and that the spread codes, which are obtained by multiplying said m orthogonal spread codes by a second pseudo-random noise code having the same code as the first pseudo-random noise code but having a different time phase from that of the first pseudo-random noise code by a predetermined time period, are assigned to channel numbers #(m+1) to #2m, thereby making a number of channels in the same cell larger than number of the orthogonal spread codes.

2. A mobile telephone system according to claim 1, wherein said m orthogonal spread codes are multiplied by n pseudo-random noise codes having different time phases from each other to obtain nxm spread codes where n is an integer larger than 2, thereby making the number of channels in the same cell to be n times as large as the number of the orthogonal spread codes.

3. A CDMA (code division multiple access) transmitter, comprising:

first means for multiplying a plurality of orthogonal codes by a first pseudo-random noise code to obtain a plurality of first spreading codes and for employing the first spreading codes to spread information associated with a first plurality of channels to which the first spreading codes are assigned respectively;

second means for multiplying the orthogonal codes by a second pseudo-random noise code to obtain a plurality of second spreading codes and for employing the second spreading codes to spread further information associated with a second plurality of channels to which the second spreading codes are assigned respectively, the second pseudo-random noise code being substantially the same as the first pseudo-random noise code except for a phase difference; and

means for combining at least the information spread by the first and second means to obtain combined information for transmission.

4. A CDMA (code division multiple access) transmission method, comprising the steps of:

(a) multiplying a plurality of orthogonal codes by a first pseudo-random noise code to obtain a plurality of first spreading codes;

(b) employing the first spreading codes to spread information associated with a first plurality of channels to which the first spreading codes are assigned respectively;

(c) multiplying the orthogonal codes by a second pseudo-random noise code, when further channels are needed by further information, to obtain a plurality of second spreading codes, the second pseudo-random noise code being substantially the same as the first pseudo-random noise code except for a phase difference;

(d) employing the second spreading codes to spread the further information associated with a second plurality of channels to which the second spreading codes are assigned respectively; and

(e) combining at least the information that was spread during steps (b) and (d) to obtain combined information for transmission.

5. A CDMA (code division multiple access) communication system, comprising:

a transmitter which includes:

first means for multiplying a plurality of orthogonal codes by a first pseudo-random noise code to obtain a plurality of first spreading codes and for employing the first spreading codes to spread information associated with a first plurality of channels to which the first spreading codes are assigned respectively,

second means for multiplying the orthogonal codes by a second pseudo-random noise code to obtain a plurality of second spreading codes and for employing the second spreading codes to spread further information associated with a second plurality of channels to which the second spreading codes are assigned respectively, the second pseudo-random noise code being substantially the same as the first pseudo-random noise code except for a phase difference, and

means for combining at least the information spread by the first and second means to obtain combined information for transmission; and

a receiver which includes means for recovering the information associated with at least one of the first and second plurality of channels by despreading the combined information with at least one of the first and second spreading codes.

6. A method for us in a CDMA (code division multiple access) communication system for recovering information that was transmitted over a first channel or a second channel, said method comprising the steps of:

(a) multiplying a code selected from a set of orthogonal codes by another code to obtain a spreading code;

(b) despreading a received signal using the spreading code obtained in step (a); and

(c) selecting the first channel or the second channel by using, as the another code in step (a), a predetermined pseudo-random noise code or the pseudo-random noise code shifted in phase.

7. A CDMA (code division multiple access) receiver for recovering information that was transmitted over a first channel or a second channel, said receiver comprising:

despreading means for despreading a received signal to recover the information that was transmitted over the first channel or the second channel; and

multiplying means for multiplying a code selected from a set of orthogonal codes by a pseudo-random noise code or the pseudo-random noise code shifted in phase, the information transmitted over the first channel being recovered if the selected orthogonal code is multiplied by the pseudo-random noise code and the information transmitted over the second channel being recovered if the selected orthogonal code is multiplied by the pseudo-random noise code shifted in phase.